CONTENTS OF VOLUME 11

Number 1/2

Special Issue: Current Topics in Structural Geology

	v	Preface
	vii	*Journal of Structural Geology* Editors, past and present
R. H. SIBSON	1	Earthquake faulting as a structural process
J. A. JACKSON and N. J. WHITE	15	Normal faulting in the upper continental crust: observations from regions of active extension
J. ANGELIER	37	From orientation to magnitudes in paleostress determinations using fault slip data
T. SHIMAMOTO	51	The origin of *S–C* mylonites and a new fault-zone model
G. S. LISTER and G. A. DAVIS	65	The origin of metamorphic core complexes and detachment faults formed during Tertiary continental extension in the northern Colorado River region, U.S.A.
J. C. MOORE	95	Tectonics and hydrogeology of accretionary prisms: role of the décollement zone
P. J. CONEY	107	Structural aspects of suspect terranes and accretionary tectonics in western North America
R. J. KNIPE	127	Deformation mechanisms—recognition from natural tectonites
S. F. COX and M. A. ETHERIDGE	147	Coupled grain-scale dilatancy and mass transfer during deformation at high fluid pressures: examples from Mount Lyell, Tasmania
W. D. MEANS	163	Synkinematic microscopy of transparent polycrystals
D. MAINPRICE and A. NICOLAS	175	Development of shape and lattice preferred orientations: application to the seismic anisotropy of the lower crust
J. G. RAMSAY	191	Emplacement kinematics of a granite diapir: the Chindamora batholith, Zimbabwe
M. P. A. JACKSON and C. J. TALBOT	211	Anatomy of mushroom-shaped diapirs

Number 3

R. L. M. VISSERS	231	Asymmetric quartz *c*-axis fabrics and flow vorticity: a study using rotated garnets
M. BJORNERUD	245	Mathematical model for folding of layering near rigid objects in shear deformation
S. R. PATERSON, O. T. TOBISCH and T. BHATTACHARYYA	255	Regional, structural and strain analyses of terranes in the Western Metamorphic Belt, Central Sierra Nevada, California

Contents

A. A. Barka and L. Gülen — 275 Complex evolution of the Erzincan Basin (eastern Turkey)

J. L. Simón-Gómez — 285 Late Cenozoic stress field and fracturing in the Iberian Chain and Ebro Basin (Spain)

A. Grønlie and D. Roberts — 295 Resurgent strike-slip duplex development along the Hitra-Snåsa and Verran Faults, Møre-Trøndelag Fault Zone, Central Norway

J. J. Walsh and J. Watterson — 307 Displacement gradients on fault surfaces

J. R. Gibson, J. J. Walsh and J. Watterson — 317 Modelling of bed contours and cross-sections adjacent to planar normal faults

D. E. Moore, R. Summers and J. D. Byerlee — 329 Sliding behavior and deformation textures of heated illite gouge

V. K. Gairola — 343 Calcite fabrics in the hinge zones of experimentally folded single layers of marble and limestone

S. R. Paterson, R. H. Vernon and O. T. Tobisch — 349 A review of criteria for the identification of magmatic and tectonic foliations in granitoids

Brevia

B. Lafrance, P. F. Williams and C. G. Elliott — 365 Sinistral shear during Acadian deformation in north-central Newfoundland, based on transecting cleavage: Discussion

R. S. Blewett and K. T. Pickering — 366 Sinistral shear during Acadian deformation in north-central Newfoundland, based on transecting cleavage: Reply

369 Book Reviews

373 Short Notice

Number 4

A. S. Jayko and M. C. Blake, Jr — 375 Deformation of the Eastern Franciscan Belt, northern California

P. Balé and J.-P. Brun — 391 Late Precambrian thrust and wrench zones in northern Brittany (France)

A. E. Gates and L. Glover, III — 407 Alleghanian tectono-thermal evolution of the dextral transcurrent Hylas zone, Virginia Piedmont, U.S.A.

D. A. Ferrill and W. M. Dunne — 421 Cover deformation above a blind duplex: an example from West Virginia, U.S.A.

D. Waltham — 433 Finite difference modelling of hangingwall deformation

E. G. Bombolakis — 439 Thrust fault mechanics and dynamics during a developmental stage of a foreland belt

D. A. Ferrill — 457 Primary crenulation pencil cleavage

G. Kimura, K. Koga and K. Fujioka — 463 Deformed soft sediments at the junction between the Mariana and Yap Trenches

S. H. Lamb and H. M. Bibby — 473 The last 25 Ma of rotational deformation in part of the New Zealand plate-boundary zone

Brevia

R. J. Lisle — 493 A simple construction for shear stress

N. Mandal and C. Chakraborty — 497 Fault motion and curved slickenlines: a theoretical analysis

T. G. Apotria — 503 Vector analysis of fault bends and intersecting faults: Discussion

A. McCaig — 506 Vector analysis of fault bends and intersecting faults: Reply

Number 5

L. Jolivet and Ph. Huchon — 509 Crustal-scale strike-slip deformation in Hokkaido, northern Japan

M. W. Elison and R. C. Speed — 523 Structural development during flysch basin collapse: the Fencemaker allochthon, East Range, Nevada

R. T. Chen and G. Oertel — 539 Strain history of the Los Prietos syncline, Santa Maria basin, California: a case of post-tectonic compaction

D. Saha — 553 The Caledonian Skerrols Thrust, SW Scotland—microstructure and strain

D. K. Mukhopadhyay and B. W. Haimanot — 569 Geometric analysis and significance of mesoscopic shear zones in the Precambrian gneisses around the Kolar Schist Belt, south India

J. Malavieille and J. F. Ritz — 583 Mylonitic deformation of evaporites in décollements: examples from the Southern Alps, France

B. A. Brill — 591 Deformation and recrystallization microstructures in deformed ores from the CSA mine, Cobar, N.S.W., Australia

S. E. Laubach — 603 Paleostress directions from the preferred orientation of closed microfractures (fluid-inclusion planes) in sandstone, East Texas basin, U.S.A.

T. M. Tharp — 613 Crystal rotation by mechanical interaction between plastically anisotropic crystals

Brevia

W. D. Means — 625 A construction for shear stress on a generally-oriented plane

J. M. Bartley — 629 A computer model of sheath-nappes formed during crustal shear in the Western Gneiss Region, central Norwegian Caledonides: Discussion

F. W. Vollmer — 630 A computer model of sheath-nappes formed during crustal shear in the Western Gneiss Region, central Norwegian Caledonides: Reply

633 Diary

Number 6

P. W. G. TANNER — 635 — The flexural-slip mechanism

T. M. WILL and C. J. L. WILSON — 657 — Experimentally produced slickenside lineations in pyrophyllitic clay

S. WOJTAL — 669 — Measuring displacement gradients and strains in faulted rocks

M. A. BUSSELL — 679 — A simple method for the determination of the dilation direction of intrusive sheets

L. SKJERNAA — 689 — Tubular folds and sheath folds: definitions and conceptual models for their development, with examples from the Grapesvare area, northern Sweden

B. LAFRANCE — 705 — Structural evolution of a transpression zone in north central Newfoundland

V. L. HANSEN — 717 — Structural and kinematic evolution of the Teslin suture zone, Yukon: record of an ancient transpressional margin

S. E. LAUBACH, S. J. REYNOLDS, J. E. SPENCER and S. MARSHAK — 735 — Progressive deformation and superposed fabrics related to Cretaceous crustal underthrusting in western Arizona, U.S.A.

S. HANMER — 751 — Initiation of cataclastic flow in a mylonite zone

Brevia

F. LUAN — 763 — The correlation between stress direction and extinction pattern of radial crystal fibres in synthetic quartz aggregates

J. SIMON, M. S. JAPAS and A. J. AMOS — 769 — The strainscope: an optical device for field measurement of homogeneous finite strain

N. I. FISHER — 775 — Smoothing a sample of circular data

779 — Book Reviews

Number 7

Special Issue: Friction Phenomena in Rock

Introduction

J. G. SPRAY — 783 — Friction phenomena in rock: an introduction

Section I: Lower slip-rate effects

R. M. STESKY and S. S. HANNAN — 787 — A new theory for the static contact between rough, unmated surfaces in non-elastically deforming rock and its implications for rock friction

C. MARONE and C. H. SCHOLZ — 799 — Particle-size distribution and microstructures within simulated fault gouge

C. A. MORROW and J. D. BYERLEE — 815 — Experimental studies of compaction and dilatancy during frictional sliding on faults containing gouge

R. L. BIEGEL, C. G. SAMMIS and J. H. DIETERICH — 827 — The frictional properties of a simulated gouge having a fractal particle distribution

F. M. CHESTER — 847 — Dynamic recrystallization in semi-brittle faults

P. JORDAN and R. NÜESCH — 859 Deformational behavior of shale interlayers in evaporite detachment horizons, Jura overthrust, Switzerland

Section II: Higher slip-rate effects

R. H. SIBSON — 873 High-angle reverse faulting in northern New Brunswick, Canada, and its implications for fluid pressure levels

W. L. POWER and T. E. TULLIS — 879 The relationship between slickenside surfaces in fine-grained quartz and the seismic cycle

J. G. SPRAY — 895 Slickenside formation by surface melting during the mechanical excavation of rock

J. F. MAGLOUGHLIN — 907 The nature and significance of pseudotachylite from the Nason terrane, North Cascade Mountains, Washington

D. A. GLOWKA — 919 The thermal response of rock to friction in the drag cutting process

Number 8

M. T. SWANSON — 933 Sidewall ripouts in strike-slip faults

P. J. HUDLESTON — 949 The association of folds and veins in shear zones

W. R. JAMISON — 959 Fault-fracture strain in Wingate Sandstone

G. OERTEL, T. ENGELDER and K. EVANS — 975 A comparison of the strain of crinoid columnals with that of their enclosing silty and shaly matrix on the Appalachian Plateau, New York

J. T. VAN BERKEL — 995 Deformation in the overburden of diapiric evaporite ridges: examples from the Sverdrup Basin, Canadian Arctic Archipelago

J. WHEELER — 1007 A concise algebraic method for assessing strain in distributions of linear objects

D. C. BRADLEY — 1011 Description and analysis of early faults based on geometry of fault–bed intersections

W. M. SCHWERDTNER — 1021 The solid-body tilt of deformed paleohorizontal planes: application to an Archean transpression zone, southern Canadian Shield

D. SHELLEY — 1029 Plagioclase and quartz preferred orientations in a low-grade schist: the roles of primary growth and plastic deformation

D. SHELLEY — 1039 *P*, *M* and *G* tectonites: a classification based on origin of mineral preferred orientations

Brevia

M. BJORNERUD — 1045 Toward a unified conceptual framework for shear-sense indicators

T. G. BLENKINSOP — 1051 Thickness–displacement relationships for deformation zones: Discussion

J. HULL 1053 Thickness–displacement relationships for deformation zones: Reply

1055 Book Reviews

1059 Referees for Volume 11

i Contents and Author Index, Volume 11